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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/587,640	07/28/2006	Masayoshi Horiuchi	121036-0092	2792

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BUTZEL LONG
IP DOCKETING DEPT
350 SOUTH MAIN STREET
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ANN ARBOR, MI 48104

EXAMINER	
BUIE, NICOLE M	
ART UNIT	**PAPER NUMBER**
1796	

NOTIFICATION DATE	DELIVERY MODE
12/26/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/587,640	HORIUCHI ET AL.	
	Examiner	Art Unit	
	NICOLE M. BUIE	1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 September 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

The amendment filed on 09/18/2008 has been entered. Claims 1-6 remain pending in the application.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato et al. (US 5,876,617) in view of Amimoto et al. (US 5,055,538).

Regarding claim 1, Sato et al. discloses a method for producing an acrylic copolymer (Abstract, C2/L8-23), which comprises emulsion polymerizing a monomer mixture of (a) 30-70% by weight of perfluoroalkylalkyl (meth)acrylate (Abstract, C2/L9-16), represented by the following general formula:

CH2=CROOR'Rf

(where R is a hydrogen atom or a methyl group, R.' is a linear or branched alkylene group having 1-8 carbon atoms, and Rf is a perfluoroalkyl group having 4-16 carbon atoms) (Abstract, C2/L9-16), (b) 25-60% by weight of stearyl (meth)acrylate (Abstract, C2/L16-17), and (d) 0.1-5% by weight of N- methylol (meth)acrylamide (Abstract, C2/L8-23) in the presence of a non-ionic and/or cationic surfactant (C3/L9-22) wherein a polypropylene glycol-based compound is used as an emulsification aid (C3/L5-8). Sato et al. discloses not more than 5% by weight of hydroxyalkyl (meth)acrylate (C2/L20-23).

However, Sato et al. does not disclose 0.1-5% by weight of (meth)acrylamide. Amimoto et al. teaches a method for producing an acrylic copolymer (C6/L19-68, Table 4). Amimoto et al. further teaches hydroxyalkyl (meth)acrylate is equivalent to (meth)acrylamide, since both compounds have similar functions, which is to increase water-and oil-repellency and durability of the water- and oil-repellent (C3/L27-60, C3/L67-C4/L5). Additionally, Amimoto et al. teaches that the amount of (meth)acrylamide is 0.1-5% by weight (C3/L48-60). Amimoto et al. and Sato et al. are analogous inventions related to methods for producing an acrylic copolymer. Therefore, it would have been obvious to one of ordinary skill in the art to substitute the (meth)acrylamide for the hydroxyalkyl (meth)acrylate of method of Sato et al., since substitution of equivalent water- and oil-repellency agents requires no express motivation, as long as the prior art recognizes equivalency. *In re Fount*, 213 USPQ 532 (CCPA 1982); *In re Siebentritt*, 152 USPQ 618 (CCPA 1967); *Graver Tank & Mfg. Co. Inc. V. Linde Products Co.* 85 USPQ 328 (USSC 1950).

However, Sato et al. does not disclose a polypropylene glycol-based compound having a molecular weight of 250-5,000. Additionally, Amimoto et al. teaches a similar monomethacrylate polyolefin with a degree of polymerization being from 2 to 40 which corresponds to a molecular weight of from about 200 to about 2369. It would have been obvious to one of ordinary skill in the art at the time of invention to use the molecular weight of Amimoto et al. in a method of Sato et al. It would have been obvious to one of ordinary skill to try the molecular weight of a similar compound as suggested by Amimoto et al. since a similar compound is used in a similar oil and water repellent composition.

Regarding claim 2, Sato et al. discloses a method of producing an acrylic copolymer, wherein after the monomer mixture is emulsified and dispersed by an emulsification means using a high pressure homogenizer, the emulsion polymerization is carried out by adding a polymerization initiator thereto (C3/L16-22, C6/L55-C7/L3).

Regarding the method limitations of claims 3 and 5, the examiner notes that even though a product by process is defined by the process steps by which the product is made, determination of patentability is based on the product itself. In re Thorpe, 777 F. 2d 695, 227 USPQ 964 (Fed. Cir. 1985). As the court stated in Thorpe, 777 F. 2d at 697, 227 USPQ at 966 (The patentability of a product does not depend on its method of production. In re Pilkington, 411 F. 2d 1345, 1348, 162 USPQ 145, 147 (CCPA 1969). If the product in a product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.)

Regarding claims 3 and 5, Sato et al. discloses an emulsion polymerized acrylic copolymer (C3/L9-22, C3/L55-C4/L13).

Regarding claims 4 and 6, Sato et al. further discloses water and oil repellent, which comprises an emulsion polymerized acrylic copolymer (C3/L33-47).

Response to Arguments

Applicant's arguments have been fully considered but they are not persuasive. The following comments apply:

A) Applicant's argument that the resulting emulsion of Sato et al. fails to fully satisfy the emulsion stability, preservation stability and further washing stability when used as a water and oil repellent (P7) is not persuasive. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

B) Applicant's argument that using a polypropylene glycol based compound as an emulsification aid improves emulsion stability of the aqueous dispersion (P8) is not persuasive. The polyether acrylate monoester with the same claimed molecular weight is suggested by the combination of Sato et al. and Amimoto et al. as shown above in the rejection of claim 1.

D) Applicant's argument that hydroxyalkyl(meth)acrylate is not equivalent to (meth)acrylamide (P9) is not persuasive. The makeup of the polymers in Examples 1 and 2 when compared to that of Comparative Example 1 is very different. Particularly, Example 1 and Comparative Example 1 teaches different amounts of perfluoroalkylethyl acrylate, stearyl acrylate and do not contain the same components. Example 2 and Comparative Example 1 do not have the same perfluoroalkylethyl acrylate.

E) Applicant's argument that Sato et al. and Amimoto et al. are distinguishable over the present invention in that (meth)acrylate is not used as a comonomer (P9) is not persuasive. Sato et al. teaches perfluoroalkylethyl (meth)acrylate as well as stearyl (meth)acrylate (Abstract, C/L8-23).

F) Applicant's argument that Sato et al. discusses the use of a hydrophilic monomer that is used to facilitate emulsion dispersability and not an emulsification aid (P10) is not persuasive. It is acknowledged that it is not Applicant's intent that the polypropylene glycol compound is a comonomer, but this possibility is not excluded.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NICOLE M. BUIE whose telephone number is (571)270-3879. The examiner can normally be reached on Monday-Thursday with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Eashoo can be reached on (571)272-1197. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/N. M. B./
Examiner, Art Unit 1796
12/17/2008

/Marc S. Zimmer/

Primary Examiner, Art Unit 1796